REMARKS

Claims 1-13, 16, 19-26 and 31 are pending in this application. By this Amendment, the specification and claims 1, 21 and 22 are amended, claims 14, 15, 17, 18 and 27-30 are cancelled and claim 31 is added to include features from original claims 1, 2 and 8.

Restriction was required and Applicants elected claims 1-26. Applicants reserve the right to file a Divisional Application based on non-elected claims 27-30.

The specification and claims were objected to, and have been amended responsive to the objection. It is respectfully requested that the objection be withdrawn.

Claims 1-3, 14, 15, 17, 18 and 21-23 were rejected under 35 U.S.C. §102(b) over Minet et al. (Minet), U.S. Patent No. 4,981,676. The rejection is respectfully traversed.

Minet fails to disclose a fuel reforming apparatus with a filtering member comprised of an interstitial material including a plurality of gaps having a predetermined effective diameter from 10 to 100 μm for trapping soot that is generated in the raw gas due to the hydrocarbonic fuel, as recited in claim 1 and as similarly recited in claim 21.

Minet discloses a ceramic membrane tube 11 that is permeable to hydrogen (col. 3, lines 38-53). The ceramic membrane tube11 includes three layers and a support layer. As illustrated in Table 2, the layers include a plurality of pore diameters that are smaller than the effective diameter of 10 to 100 μm. Minet thus fails to disclose all of the features recited in claims 1 and 21.

Page 3 of the Office Action asserts that Minet discloses an effective diameter of 10 to 15 microns. However, this is not the effective diameter of the membrane tube 11. The effective diameter of the membrane tube 11 depends on the pore diameter of the layers and not the support material. In other words, the effective diameter of the membrane tube 11 is 40Å, which is significantly less that 10 to 100 μm. Minet uses a diameter that is significantly

less than the diameter used in claims 1 and 21 because Minet is directed to filtering hydrogen and not the trapping of soot as in claims 1 and 21.

It is respectfully requested that the rejection be withdrawn.

Claims 4-10, 12, 13, 16 and 20 were rejected under 35 U.S.C. §103(a) over Minet in view of LaPierre et al. (LaPierre), U.S. Patent No. 6,348,278. The rejection is respectfully traversed.

Minet and LaPierre fail to disclose or suggest all of the features recited in claim 31, which includes features from original claims 1, 2 and 8. As admitted on page 5 of the Office Action, Minet fails to disclose all of the features recited in claim 8.

LaPierre only discloses that a monolithic matrix 36 can be used as a support for a steam reforming catalyst (col. 5, lines 35-39). LaPierre fails to provide any disclosure or suggestion with regard to carrying the reforming catalyst on the filtering member, which is separate from the monolithic matrix 26 (col. 8, lines 32-39 and Fig. 1). LaPierre is also directed to filtering hydrogen and not the trapping of soot (col. 8, lines 35-39), and thus fails to suggest all of the features recited in claim 31.

The combination of features recited in claim 31 can achieve various advantages, including having unreacted raw gas come into contact with the reforming catalyst carried on the filtering member while flowing through the processed gas flow passage, and reformed into reformed gas by the reforming catalyst (paragraph [0019] of Applicants' specification). The unreacted raw gas does not pass through the filtering member in LaPierre because the filtering member separates the hydrogen from the other gases, which is reformed by the reforming catalyst, and passes only hydrogen through the filtering member (col. 8, lines 35-39).

It is respectfully requested that the rejection be withdrawn.

Claim 11 was rejected under 35 U.S.C. §103(a) over Minet in view of LaPierre and Abe et al. (Abe), U.S. Patent No. 6,576,203, claims 24-26 were rejected under 35 U.S.C. §103(a) over Minet in view of Hwang et al. (Hwang), U.S. Patent No. 4,522,894, and Doty et al. (Doty), U.S. Patent No. 5,098,455, and claim 19 was rejected under 35 U.S.C. §103(a) over Minet in view of Jahnke et al. (Jahnke), U.S. Patent No. 6,149,859. The rejections are respectfully traversed.

None of the remaining applied references overcome the deficiencies of Minet and LaPierre in disclosing or suggesting all of the features recited in claims 1, 21 and 31. It is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

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